

Curriculum : Class -X (Physics)

S.N	Content	Objectives	Skills	Learning Styles	Activity	Subject Integration	Outcome	Assessment
1	Light- Reflection and Refraction	<p>To enable the students to-</p> <ul style="list-style-type: none"> * understand the dual nature of light. * State the laws of reflection and Refraction of Light. * differentiate between real and virtual images. * know about spherical mirrors and Lenses. * Know the characteristics of images formed by spherical mirrors and lens at various positions of objects by drawing the various ray diagrams. * identify the various spherical mirrors and lens by looking in them. * learn the Mirror Formula , lens Formula and the Magnification and solve numericals based on these. * Calculate image distance ,image size ,magnification and the nature of the image on the basis of data given and formulae for spherical mirrors and lens. *Comprehend the uses of spherical mirrors and lens through the ray diagrams. * Comprehend Refraction of light through rectangular glass slab . 	<p>Experimentation</p> <p>Logical and Mathematical Observation</p> <p>Making</p> <p>Application of knowledge in daily life</p> <p>Group Work</p>	<p>*Bodily-Kinesthetic</p> <p>(by performing experiments)</p> <p>Mathematical</p> <p>(by solving numericals)</p> <p>*Interpersonal</p> <p>(by discussions)</p> <p>*Naturalistic</p> <p>(by performing activities in lab and using water etc)</p> <p>*Visual (by seeing and drwaing ray diagrams)</p>	<p>In Laboratory-</p> <p>1. To find the focal length of a given concave mirror.</p> <p>2.To find the focal length of a given convex lens.</p> <p>3.To study refraction of light through a rectangular glass slab.</p> <p>4. To draw the various ray diagrams of a convex lens by placing the object at different positions.</p> <p>Class Activities-</p> <p>1.Seeing the image of our face in both sides of a steel spoon.</p> <p>2.Various phenomenon depicting refraction of light in water like observing partially immersed pencil in water etc.</p> <p>3.reading small letters using a convex lens.</p>	<p>*Maths (solving numericals and drawing ray diagrams)</p> <p>*Arts (diagrams)</p>	<p>Students will be able to-</p> <ul style="list-style-type: none"> * understand the dual nature of light. * State the laws of reflection and Refraction of light. * differentiate between real and virtual images. Lenses. * Know the characteristics of images formed by spherical mirrors and lens at various positions of objects by drawing the various ray diagrams. * identify the various spherical mirrors and lens by looking in them. * learn the Mirror Formula , lens Formula and the Magnification and solve numericals based on these. * Calculate image distance ,image size ,magnification and the nature of the image on the basis of data given and formulae for spherical mirrors and lens. *Comprehend the uses of spherical mirrors and lens through the ray diagrams. * Comprehend Refraction of light through rectangular glass slab . 	<p>Pre-Mid Term</p> <p>Mid- Term</p> <p>Post-Mid Term/Pre-Board</p> <p>Class-Tests</p> <p>+Viva(Subject</p> <p>Notebook Assessment</p> <p>Final (Board) Exams</p>

		<p>*understand atmospheric refraction and give reasons of natural phenomenon occurring due to it like twinkling of stars,advance sunrise ,delayed sunset etc.</p> <p>*comprehend the phenomenon of scattering of light and use it to explain phenomenon like blue colour of sky ,red colour during sunrise and sunset etc.</p>				<p>*understand atmospheric refraction and give reasons of natural phenomenon occurring due to it like twinkling of stars,advance sunrise ,delayed sunset etc.</p> <p>*comprehend the phenomenon of scattering of light and use it to explain phenomenon like blue colour of sky ,red colour during sunrise and sunset etc.</p>		
		*Know the concept of Total internal reflection.					*Know the concept of Total internal reflection.	
3 Electricity	<p>Students should be able to-</p> <p>*define and understand electric current ,electric potential ,potential difference ,electric circuit, resistance ,electric Power etc.</p>	<p>Experimentation</p> <p>Logical and</p> <p>Observation</p> <p>Diagram Making</p>	<p>Visual</p> <p>bodily kinesthetic</p> <p>experimentation</p> <p>mathematical-logical</p>	<p>In laboratory-</p> <p>1.To prove Ohm's Law</p> <p>2.To find the resultant resistance when resistors are connected in (i) series(ii)parallel</p>	<p>*Maths (solving numericals and drawing ray</p> <p>*Arts (diagrams and electric circuits)</p> <p>*Chemistry(properties of metals like Tunsten ,Nichrome etc.)</p>	<p>Students will be able to-</p> <p>*define and understand electric current ,electric potential ,potential difference ,electric circuit, resistance ,electric Power etc.</p> <p>*know and draw electric circuits with symbols. *state Ohm's law and relate current ,potential difference and resistance and solve numericals based on it.</p>	<p>Mid- Term</p> <p>Post-Mid Term/Pre-</p> <p>Class-Tests</p> <p>Practicals</p> <p>+Viva(Subject Enrichment Activity)</p>	
		<p>*know and draw electric circuits with symbols.</p>	<p>Application of knowledge in daily life</p>		<p>Class activities-</p>			<p>Preparatory Tests</p>
	<p>*state Ohm's law and relate current ,potential difference and resistance and solve numericals based on it.</p> <p>*know the factors on which the resistance of</p> <p>*differentiate between resistance and resistivity.</p> <p>*comprehend the series and parallel combination of resistors.</p> <p>*solve numericals based on combination of resistors.</p>			<p>*To draw electric circuits using various symbols.</p> <p>*School's fuse circuit</p> <p>*To find out the power ratings of electrical appliances.</p> <p>*Preparation of electricity bill for one month when power rating ,time of consumption and rate of electricity of various appliances is known.</p>		<p>*know the factors on which the resistance of a conductor depends.</p> <p>*differentiate between resistance and resistivity. *comprehend the series and parallel combination of resistors.</p> <p>*solve numericals based on combination of resistors.</p>		
		*analyse the advantages of parallel combination over series.					*analyse the advantages of parallel combination over series.	

		<p>*comprehend the heating effects of current and apply it to understand the working and importance of an electric fuse ,heating appliances ,electric bulb etc.</p> <p>*solve numericals based on electric power ,electrical energy consumption and calculate the electricity bill if power,rate and time if usage of an electrical appliance is known.</p>				<p>*comprehend the heating effects of current and apply it to understand the working and importance of an electric fuse ,heating appliances ,electric bulb etc.</p> <p>*solve numericals based on electric power ,electrical energy consumption and calculate the electricity bill if power,rate and time if usage of an electrical appliance is known.</p>		
		<p>*be sensitive for electrical energy saving by smart ways.</p> <p>*state the Joule's law of heating.</p>				<p>*be sensitive for electrical energy saving by smart ways.</p> <p>*state the Joule's law of heating.</p>		
4	Magnetic effects of current	<p>To enable the students to-</p> <p>*define and comprehend magnetic field and field lines.</p> <p>*recollect that electric current creates a magnetic field around it (magnetic effect of electric current)</p> <p>*state and use the Right Hand Thumb Rule.</p> <p>*know the concept of a Solenoid.</p> <p>*comprehend that when a current carrying conductor is placed in a magnetic field ,it experiences a force.</p>	<p>Experimentation</p> <p>Logical and Mathematical</p> <p>Observation</p> <p>Diagram Making</p> <p>Application of knowledge in daily life</p> <p>Memorisation</p>	<p>Visual</p> <p>bodily kinesthetic</p> <p>experimentation</p> <p>mathematical-logical</p>	<p>*using iron dust and a bar magnet ,creating magnetic field lines.</p> <p>*Applying Right hand thumb rule ,Fleming's Left Hand Rule,Fleming's Right Hand Rule with thier own hands to find out the required directions.</p> <p>*working model of electric Generator to be demonstrated.</p> <p>*electromagnet to be made and shown in class.</p> <p>*Videos showing the principle ,Construction and working of electric motor and Generator to be shown.</p> <p>*Live ,Neutral and Earth wire to be shown in class with their coloured insulation.</p>	<p>*History(discovery of magnets)</p> <p>*electrical engineering</p> <p>*Computer(videos ,PPTs)</p>	<p>The students will be able to-</p> <p>*define and comprehend magnetic field and field lines.</p> <p>*recollect that electric current creates a magnetic field around it (magnetic effect of electric current)</p> <p>*state and use the Right Hand Thumb Rule.</p> <p>*know the concept of a Solenoid.</p> <p>*comprehend that when a current carrying conductor is placed in a magnetic field ,it experiences a force.</p>	<p>Post-Mid Term/Pre-Board</p> <p>Class-Tests</p> <p>Preparatory Tests</p>

		<p>*find the direction of force if the direction of current and magnetic field is known using Fleming's Left Hand Rule and also state the rule.</p> <p>*State and principle of an electric motor and explain the function of various parts used in it.</p> <p>*comprehend the concept of Electromagnetic Induction (electricity from magnetism)</p> <p>*Know about the principle and function of various parts in an electric generator.</p> <p>*find the direction of induced current if the direction of force and magnetic field is known using Fleming's Right Hand Rule and also state the rule.</p> <p>*differentiate between AC and DC and know the advantages and disadvantages of both.</p> <p>*comprehend domestic electric circuit and draw a schematic diagram of it. *explain the terms like Short-circuiting, Overloading etc.</p> <p>*analyse the importance of Earthing and Fuse in domestic electric circuit and apply the knowledge in daily life for safety.</p>	Safety				<p>*find the direction of force if the direction of current and magnetic field is known using Fleming's Left Hand Rule and also state the rule.</p> <p>*State and principle of an electric motor and explain the function of various parts used in it.</p> <p>*comprehend the concept of Electromagnetic Induction (electricity from magnetism)</p> <p>*Know about the principle and function of various parts in an electric generator.</p> <p>*find the direction of induced current if the direction of force and magnetic field is known using Fleming's Right Hand Rule and also state the rule.</p> <p>*differentiate between AC and DC and know the advantages and disadvantages of both.</p> <p>*comprehend domestic electric circuit and draw a schematic diagram of it. *explain the terms like Short-circuiting, Overloading etc.</p> <p>*analyse the importance of Earthing and Fuse in domestic electric circuit and apply the knowledge in daily life for safety.</p>	
5	Sources of Energy	<p>To enable the students to-</p> <p>*know the characteristics of a good source of energy.</p> <p>*classify the conventional and non-conventional sources of energy.</p> <p>*Classify the sources as renewable and non-renewable.</p> <p>*comprehend how energy is obtained from fossil fuels.</p>	<p>*Application of knowledge to real life</p> <p>*Environment sensitivity</p>	<p>Visual</p> <p>bodily kinesthetic</p>	<p>*Model of solar cooker</p> <p>* related videos to be shown</p>	<p>Biology (Manures etc.)</p> <p>Chemistry (Gases Methane etc.)</p>	<p>The students will be able to-</p> <p>*know the characteristics of a good source of energy.</p> <p>*classify the conventional and non-conventional sources of energy.</p> <p>*Classify the sources as renewable and non-renewable.</p> <p>*comprehend how energy is obtained from fossil fuels.</p>	<p>Post-Mid Term/Pre-Board</p> <p>Class-Tests</p> <p>Preparatory Tests</p>

		<p>*explain the working of Thermal power plant ,hydro power plant and their advantages and disadvantages.</p> <p>*know how energy is harnessed from wind ,sun ,tides, oceans ,earth ,nucleus etc.</p> <p>*analyse the advantages of renewable sources of energy over non-renewable.</p> <p>*state the construction and working of a solar cooker.</p> <p>*analyse the environmental consequences of overusing or misusing energy.</p> <p>*apply this knowledge to use energy judiciously.</p> <p>*comprehend how conventional sources of energy are being used in a non-conventional way to reduce pollution and increase the calorific value like biomass to bio gas.</p> <p>*explain the construction and working of a bio-gas plant.</p> <p>*evaluate the advantages of bio-gas over bio-mass.</p>				<p>*explain the working of Thermal power plant ,hydro power plant and their advantages and disadvantages.</p> <p>*know how energy is harnessed from wind ,sun ,tides, oceans ,earth ,nucleus etc.</p> <p>*analyse the advantages of renewable sources of energy over non-renewable.</p> <p>*state the construction and working of a solar cooker.</p> <p>*analyse the environmental consequences of overusing or misusing energy.</p> <p>*apply this knowledge to use energy judiciously.</p> <p>*comprehend how conventional sources of energy are being used in a non-conventional way to reduce pollution and increase the calorific value like biomass to bio gas.</p> <p>*explain the construction and working of a bio-gas plant.</p> <p>*evaluate the advantages of bio-gas over bio-mass.</p>	
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Curriculum : Class X (Biology)

S.N	Content	Objectives	Skills	Learning Styles	Activity	Subject Integration	Outcome	Assessment
1	Life Processes	Students should be able to:					Students will be able to:	1) Pre Mid Term

<p>i) Draw neat and labelled diagrams of structure of stomata, chloroplast, internal structure of leaf, digestive system, respiratory system, circulatory system, excretory system & structure of nephron.</p> <p>ii) understand and explain the mechanism of opening and closing of stomata, photosynthesis and different life processes.</p> <p>iii) list different types of nutrition. iv) evaluate why herbivores have larger intestine than carnivores? v) apply the knowledge in maintaining their oral hygiene. vi) analyse why junk food is considered unhealthy? vii) compare aerobic and anaerobic respiration, arteries & veins, oxygenated & deoxygenated blood, blood & lymph, alveoli & nephron. viii) analyse why we feel fatigued after vigorous exercise. ix) weigh and evaluate the importance of every body organ and system. x) analyse the effect of amount of sunlight, water and Carbon-di-oxide on the rate of photosynthesis.</p>	<p>Observation Experimentation Drawing diagrams Analytical reasoning</p>	<p>* Visual (by observing charts, ppt, videos, drawing diagrams) * Bodily-kinesthetic (by preparing slide of stomata, counting pulse rate, by performing experiments related to photosynthesis) * Logical (by drawing flow chart) * Interpersonal (by group discussion) * Intrapersonal (by practising diagrams)</p>	<p># To prepare a temporary mount of a leaf peel to show stomata. (Bodily-kinesthetic & Naturalistic) # To show experimentally that light is necessary for photosynthesis. (Bodily-kinesthetic) # To show experimentally that CO₂ is given out during respiration. (Bodily-kinesthetic) # Counting pulse rate from wrist and neck area. (Bodily-kinesthetic) # To show that chlorophyll is essential for photosynthesis. (Bodily-kinesthetic) # To observe the action of saliva on starch. (Bodily-kinesthetic) # To check the products of fermentation. (Bodily-kinesthetic) # Comparing the breathing rates of fish</p>	<p>Drawing (diagrams)</p>	<p>i) draw neat and labelled diagrams of structure of stomata, chloroplast, internal structure of leaf, digestive system, respiratory system, circulatory system, excretory system & structure of nephron. ii) explain the mechanism of opening and closing of stomata, photosynthesis and different life processes. iii) enlist different types of nutrition. iv) understand why herbivores have larger intestine than carnivores, why junk food is considered unhealthy, why we feel fatigued after vigorous exercise? v) compare aerobic and anaerobic respiration, arteries & veins, oxygenated & deoxygenated blood, blood & lymph, alveoli & nephron. vi) predict the effect of amount of sunlight, water and Carbon-di-oxide on the rate of photosynthesis.</p>	<p>2) Mid Term 3) Post Mid Term 4) Group discussion 5) Final Exam 6) Hands on practical</p>
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2	Control & Coordination	<p>Students should be able to:</p> <p>i) define reflex action, tropic and nastic movements, endocrine glands and hormones.</p> <p>ii) explain the process of Reflex action. iii) draw labelled diagram of human brain, neuron, neuromuscular junction. iv) enlist the functions of different parts of human brain. v) explain how nervous tissue cause action and how are they protected? vi) explain the coordination in plants. vii) list different human endocrine glands, the hormones secreted by them and their functions. viii) analyse how the functioning of different glands in humans are dependent on each other.</p>	<p>Observation Drawing diagrams Analytical reasoning</p>	<p>* Visual (by observing charts, videos, drawing diagrams) * Bodily-kinesthetic (effect of blocked nose on taste) * Logical (by drawing flow chart) * Interpersonal (by group discussion) * Intrapersonal (by practising diagrams, worksheets) * Naturalistic (By observing the response of plant to different stimuli)</p>	<p># Understanding the relation between sense of smell and taste (Bodily-kinesthetic) # To show phototropism and geotropism (Naturalistic) # Video showing reflex action (Visual)</p>	<p>Drawing (diagrams)</p>	<p>Students should be able to:</p> <p>i) define reflex action, tropic and nastic movements, endocrine glands and hormones. ii) explain the process of Reflex action. iii) draw labelled diagram of human brain, neuron, neuromuscular junction. iv) recall the functions of different parts of human brain. v) explain how nervous tissue cause action and how are they protected? vi) explain the coordination in plants. vii) list different human endocrine glands, the hormones secreted by them and their functions. viii) predict the disorders caused in the body due to deficiency or excess of a hormone.</p>	<p>1) Pre Mid Term 2) Mid Term 3) Post Mid Term 4) Group discussion 5) Final Exam</p>
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<p>3 How do organisms Reproduce?</p>	<p>Students should be able to:</p> <p>i) comprehend the importance of variations.</p> <p>ii) list different modes of asexual reproduction.</p> <p>iii) explain the process of sexual reproduction in plants and humans. iv)</p> <p>draw diagrams of different types of asexual reproduction, structure of flower, double fertilisation in plants, male & female reproductive system in humans.</p> <p>v) explain the different types of contraceptive methods. vi) explain the importance of reproductive health.</p>	<p>Observation</p> <p>Drawing diagrams</p>	<p>* Visual (by observing charts, drawing diagrams, permanent slides)</p> <p>* Logical (through crosswords)</p> <p>* Interpersonal (by group discussion) *</p> <p>Intrapersonal (through oral questions, by practising diagrams) *</p> <p>Naturalistic (By observing the parts of different flowers).</p>	<p># Observing permanent slides (binary fission in Amoeba, budding in Yeast) #</p> <p>Identify different parts of an embryo in a dicot seed. #</p> <p>Identify different parts of a flower.</p>	<p>Drawing (diagrams)</p>	<p>Students will be able to:</p> <p>i) understand the importance of variations.</p> <p>ii) list different modes of asexual reproduction.</p> <p>iii) explain the process of sexual reproduction in plants and humans.</p> <p>iv) draw diagrams of different types of asexual reproduction, structure of flower, double fertilisation in plants, male & female reproductive system in humans. v)</p> <p>explain the different types of contraceptive methods and the importance of reproductive health.</p>	<p>1) Pre Mid Term</p> <p>2) Mid Term 3) Post Mid Term 4)</p> <p>Group discussion 5)</p> <p>Final Exam 6) Hands on practical</p>
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<p>4 Heredity & Evolution</p>	<p>Students should be able to: i) describe about the process of accumulation of variations. ii) explain the phenomenon and rules of inheritance of traits. iii) understand the concept of sex determination, evolution and classification. iv) list out the evidence to show evolution v) discuss that evolution should not be equated with progress.</p>	<p>Thinking skill Analytical skill Group work</p>	<p>* Visual (by observing charts, pictures, PPT) * Logical (through monohybrid & dihybrid crosses) * Interpersonal (by group discussion, solving worksheets in groups) * Intrapersonal (through oral questions, by doing individual worksheets) * Naturalistic (By observing and comparing parts of different plants & animals) * Bodily-kinesthetic (By making models).</p>	<p># Observing ear lobes of classmates & their parents & suggest a possible rule for the inheritance of ear lobes. (Interpersonal) # Making models of fossils using Plaster of Paris (Bodily-kinesthetic) # Investigate and collect pictures showing examples of Homologous and Analogous organs (Intrapersonal) # Drawing monohybrid and Dihybrid cross (Inter and Intrapersonal)</p>		<p>Students will be able to: i) explain the process of accumulation of variations and rules of inheritance of traits. ii) draw the flow chart showing sex determination iii) enlist different evidences to show evolution iv) explain the different steps of speciation. v) reason out that evolution should not be equated with progress.</p>	<p>1) Pre Mid Term 2) Mid Term 3)Post Mid Term 4) Group discussion 5) Final Exam</p>
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<p>5 Our Environment</p>	<p>Students should be able to: i) become aware of what happens when we add our waste to the environment. ii) understand the concept of ecosystem, food chain and food web. iii) predict how our activities affect our environment. iv) outline the reasons and the process of ozone layer depletion. v) become aware of the management of the garbage we produce</p>	<p>Thinking skill Observing skill Health and environment awareness</p>	<p>*Linguistic (through slogans) *Bodily-kinesthetic (by activities related to disposal of waste, imbalance in food chain) *Visual (by ppt on ozone layer depletion) *Interpersonal (solving worksheets in groups) *Intrapersonal (research work)</p>	<p># Burning biodegradable and non-biodegradable waste in soil and observing after 15 days. (Bodily-kinesthetic) # Activity using paper cups to show effect of change in trophic levels on whole food chain/food web. (Bodily-kinesthetic) # Make slogans related to prohibition of river pollution. # Find out what hazardous materials have to be dealt with while disposing of electronic items and how they affect environment.</p>	<p>English (Slogan writing)</p>	<p>Students will be able to: i) summarize that what will happen when we add our waste to the environment and how should we manage it. ii) draw a number of foodchains and foodwebs. iii) explain different ecosystems. iv) understand the reasons and the process of ozone layer depletion.</p>	<p>1) Pre Mid Term 2) Mid Term 3)Post Mid Term 4) Group discussion 5) Final Exam</p>
<p>6 Management of Natural Resources</p>	<p>Students should be able to: i) understand the need to conserve the natural resources in a sustainable manner. ii) analyse that pressure on the environment can be reduced by applying the three R's- reduce, recycle and reuse in our lives. iii) recognise the stakeholders of forests iv) critically analyse which stakeholders should be consulted while conserving forests. v) enlist different water harvesting techniques and structures used in India. vi) predict and investigate the problems associated with building dams.</p>	<p>understanding skill conserving and managing skill critical analysis reasoning skill</p>	<p>*Visual (by ppt on water harvesting methods) *Interpersonal (action plan in group) *Intrapersonal (or al questions) *Naturalistic (by finding how certain norms are helping to reduce pollution)</p>	<p># To find out about any two forest produce that are the basis for an industry and whether or not we need to control our consumption of these products. (interpersonal) # To prepare action plan on the given problematic situations (Interpersonal) # To find out how Euro- I and Euro-II norms for emission from vehicles work towards reducing air pollution.</p>	<p>Drawing--> diagrams</p>	<p>Students will be able to: i) explain the need to conserve the natural resources in a sustainable manner. ii) analyse the importance of three R's- reduce, recycle and reuse in our lives. iii) name the different stakeholders of forests iv) enlist different water harvesting techniques and structures used in India. v) explain the problems associated with building dams.</p>	<p>1) Pre Mid Term 2) Mid Term 3)Post Mid Term 4) Group discussion 5) Final Exam</p>

Curriculum chemistry : Class -X

S.N	Content	Objectives	Skills	Learning Styles	Activity	Subject Integration	Outcome	Assessment
1	Chemical Reactions and Equations	<p>Students should be able to:</p> <p>i) write and balance chemical equations.</p> <p>ii) identify the type of chemical reactions.</p> <p>iii) evaluate why during certain reactions the beaker turns hot and cold.</p> <p>iv) perform simple experiments and handle the apparatus.</p> <p>v) understand the reason behind corrosion.</p> <p>vi) analyse everyday effect of oxidation reactions.</p> <p>vii) enlist the methods to prevent corrosion and rancidity.</p> <p>viii) define the terms: corrosion, rancidity etc.</p>	<p>Experimentation</p> <p>Observation</p> <p>Calculation</p> <p>Categorisation</p> <p>Group work</p> <p>Critical thinking</p> <p>Analytical thinking</p>	<p># Bodily-kinesthetic (by doing experiments)</p> <p># Logical (by balancing)</p> <p># Interpersonal (by doing group work)</p> <p># Intrapersonal (by practising in registers)</p>	<p>* Burning of Magnesium ribbon (bodily-kinesthetic) * To perform the reactions:</p> <p>i) between $Pb(NO_3)_2$ and KI</p> <p>ii) between Zn granules and $dil.HCl/H_2SO_4$</p> <p>iii) addition of CaO to water.</p> <p>iv) heating of $FeSO_4$</p> <p>v) heating of $Pb(NO_3)_2$.</p> <p>vi) reaction between Fe and $CuSO_4$</p> <p>vii) heating of Cu powder</p> <p>viii) between Na_2SO_4 and $BaCl_2$ solutions</p>		<p>Students will be able to:</p> <p>i) write and balance chemical equations.</p> <p>ii) explain and identify different types of chemical reactions.</p> <p>iii) describe the reasons behind corrosion and rancidity.</p> <p>iv) define the terms: corrosion, rancidity etc.</p>	<p>1) Pre Mid Term</p> <p>2) Mid Term</p> <p>3) Post Mid Term</p> <p>4) Group discussion</p> <p>5) Final Exam</p> <p>6) Hands on practical exam</p>
2	Acids, Bases and Salts	<p>Students should be able to:</p> <p>i) understand and differentiate between chemical properties of acids, bases and salts.</p> <p>ii) enlist different indicators for checking acids and bases.</p> <p>iii) understand the importance of pH in everyday life.</p> <p>iv) list out the acids present in different natural substances.</p> <p>v) write the methods of preparation of different salts.</p> <p>vi) understand the uses of salts in everyday life and industries.</p>	<p>Experimentation</p> <p>Observation</p> <p>Critical thinking</p> <p>Analytical thinking</p>	<p># Bodily-kinesthetic (by doing experiments)</p> <p># Logical (by making tabular form of action of indicators)</p> <p># Interpersonal (by doing group work)</p>	<p>* To study the action of indicators on acids and bases. (Bodily-kinesthetic)</p> <p>* To study the pH of different substances. (Bodily-kinesthetic)</p> <p>* To study the properties of HCl and $NaOH$ by their reaction with: a) Litmus solution b) Zn metal c) solid Na_2CO_3 (Bodily-kinesthetic)</p>		<p>Students will be able to:</p> <p>i) understand and differentiate between chemical properties of acids, bases and salts.</p> <p>ii) predict the action of an indicator on acids and bases.</p> <p>iii) explain the importance of pH in everyday life.</p> <p>iv) list out the acids present in different natural substances.</p> <p>v) write the methods of preparation of different salts and give their uses.</p>	<p>1) Pre Mid Term</p> <p>2) Mid Term</p> <p>3) Post Mid Term</p> <p>4) Group discussion</p> <p>5) Final Exam</p> <p>6) Hands on practical exam</p>

3 Metals and Non-Metals	Students should be able to: i) understand the physical and chemical properties of metals and non-metals. ii) enlist the properties of ionic compounds. iii) use the reactivity series of metals in various displacement reactions. iv) understand and explain the steps involved in the extraction of metals from their ores. v) understand the reason behind corrosion. vi) enlist the methods to prevent corrosion.	Experimentation Observation Group work Critical thinking Analytical thinking	# Bodily-kinesthetic (by doing experiments) # Logical (by making flowcharts) # Interpersonal (by doing group work)	* To observe the action of Zn, Fe, Cu and Al metals on $ZnSO_4$, $FeSO_4$, $CuSO_4$ and $Al_2(SO_4)_3$ (Bodily- kinesthetic) * To arrange Zn, Fe, Cu and Al metals in decreasing order of their reactivity. (Bodily- kinesthetic and Logical) * To study the conditions necessary for rusting. (Bodily-kinesthetic and Logical)		Students will be able to: i) differentiate between metals and non-metals. ii) list the properties of ionic compounds. iii) recall the reactivity series of metals and use it to predict and understand various displacement reactions. iv) draw a flowchar showing the steps of extraction of metals. v) write the chemical reactions involved in extraction of metals. vi) describe the reason behind the corrosion and methods to prevent it.	1) Pre Mid Term 2) Mid Term 3) Post Mid Term 4) Group discussion 5) Final Exam 6) Hands on practical exam
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<p>4 Carbon and its Compounds</p>	<p>Students should be able to:</p> <p>i) understand the covalent bonding in carbon compounds.</p> <p>ii) enlist different types of allotropes of carbon and differences between them.</p> <p>iii) infer the reason for the large number of organic compounds.</p> <p>iv) develop the structural formulas of carbon compounds.</p> <p>v) understand the nomenclature of carbon compounds.</p> <p>vi) outline the chemical properties of carbon compounds.</p> <p>vii) compare and contrast the physical and chemical properties of ethanol and ethanoic acid.</p> <p>viii) summarize the cleansing action of soaps and detergents.</p> <p>ix) enlist the differences between soaps and detergents.</p>	<p>Drawing structures of organic compounds</p> <p>Experimentation</p> <p>Observation</p> <p>Drawing Conclusion</p> <p>Group work</p>	<p># Bodily-kinesthetic (use balls and sticks to build model structures of carbon compounds)</p> <p># Logical (which cleansing agent to be used in soft and hard water, naming of different carbon compounds, crossword puzzle)</p> <p># Visual (drawing the structural formulas of different organic compounds)</p> <p># Intrapersonal (solving worksheets)</p> <p># Interpersonal (by doing group work)</p>	<p>* To study the properties of acetic acid--> odour, solubility in water, effect on litmus, reaction with NaHCO_3</p> <p>* To study the comparative cleaning capacity of a sample of soap in soft and hard water.</p> <p>* To observe the flames of carbon compounds like naphthalene, camphor etc.</p> <p>* To study the action of alkaline KMnO_4 on ethanol</p> <p>* To study the esterification reaction.</p>	<p>Home Science--> working of soaps and detergents</p>	<p>Students will be able to:</p> <p>i) show covalent bonding in carbon compounds.</p> <p>ii) differentiate between different allotropes of carbon.</p> <p>iii) explain the reason for large number of organic compounds.</p> <p>iv) draw the structural formula and write the names of different carbon compounds.</p> <p>v) enlist the properties of ethanol and ethanoic acid.</p> <p>vi) compare and contrast the cleansing action of soaps and detergents.</p>	<p>1) Pre Mid Term</p> <p>2) Mid Term</p> <p>3) Post Mid Term</p> <p>4) Group discussion</p> <p>5) Final Exam</p> <p>6) Hands on practical exam</p>
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<p>5 Periodic Classification of Elements</p>	<p>Students should be able to: i) understand and justify the need for classification. ii) summarize the early attempts at classification of elements. iii) list the characteristics of Mendeleev's Periodic Table and Modern Periodic Table. iv) generalize that elements are classified on the basis of similarities in properties. v) outline the trends of valency, atomic number, metallic and non-metallic properties in Modern Periodic Table.</p>	<p>Observation Drawing conclusion Data Interpretation Group work</p>	<p># Logical(Crossword puzzle, HOTS questions) # Visual (by observing different periodic tables) # Bodily-kinesthetic (by Role-play) # Interpersonal (By group discussion) # Intrapersonal (by individual worksheets and class tests)</p>	<p>* Arranging different flowers shown on the screen in the form of a table based on their structures. (Interpersonal) * Role Play- Students will be divided into different groups and then each member will tell the characteristics of each element of that group. (Bodily-kinesthetic)</p>	<p>History--> different discoveries</p>	<p>Students will be able to: i)) understand the need for classification. ii) explain the early attempts at classification of elements. iii) differentiate between Mendeleev's Periodic Table and Modern Periodic Table. iv) generalize that elements are classified on the basis of similarities in properties. v) show the trends of valency, atomic number, metallic and non-metallic properties in Modern Periodic Table.</p>	<p>1) Pre Mid Term 2) Mid Term 3) Post Mid Term 4) Group discussion 5) Final Exam</p>
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